of the two signals, can detect the absolute position of the output shaft in the axial direction over a long stroke.

REMARKS

The specification has been amended to correct a typographical error. No amendments have been made for reasons relating to patentability. No new matter has been introduced by way of this amendment. Full examination and favorable action are requested.

Applicant believes that no fee is necessary for filing this Preliminary Amendment. If, however, Applicant is in error the Commissioner is hereby authorized to charge the deposit account of Rosenthal & Osha L.L.P., Deposit Account No. 50-0591 (Reference No. 04452/015001), for any additional fees and/or credits during the entire pendency of this application. A duplicate copy of this paper is enclosed for accounting purposes.

Respectfully submitted,

Date: 12/11/01

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APPENDIX B – MARKED-UP VERSION OF THE SPECIFICATION

(AMENDED)

With each rotation of the motor 2, the actuator output shaft 3 is moved linearly in the axial direction by an amount that is in accordance with the lead pitch of the ball-screw 41. Here, the combination of signal A and signal B will be examined. If Lp is the amount by which the output shaft 3 is moved per rotation of the motor and Sp is the detection pitch (one linear-stroke pitch) as detected by the linear absolute sensor, and Lp $\not\equiv$ Sp, then, if signals A and B are combined, even if the output shaft 3 moves within the space of the movement interval until aLp = bSp (where a and b are arbitrary coefficients), at no point of the movement is the combination of the signals A and B the same. Therefore, provided that the values of coefficients a and b are sufficiently large, it is possible to realize a linear absolute sensor that, based on the combination of the two signals, can detect the absolute position of the output shaft in the axial direction over a long stroke.